

# PUBLIC HEALTH FACT SHEET

## Cryptosporidiosis

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

### What is cryptosporidiosis?

Cryptosporidiosis is a disease of the bowel caused by a germ (a parasite) called *Cryptosporidium parvum*. It was first recognized as a cause of human illness in 1976. It was not until the spring of 1993 that cryptosporidiosis gained national attention when 400,000 people in Milwaukee, Wisconsin became ill with diarrhea after drinking water that contained this parasite.

### What are the symptoms?

The most common symptom of cryptosporidiosis is watery diarrhea. Other symptoms include weight loss, stomach cramps, nausea, vomiting, headache and mild fever. These symptoms usually appear within 1 to 12 days of swallowing the parasite. In otherwise healthy people, these symptoms usually go away on their own in about 1 to 20 days (average 10 days). Some people might not have any symptoms at all. In people with weakened immune systems (e.g., people with HIV infection, on chemotherapy or on other medications), the symptoms are more severe, last longer and can lead to severe dehydration and even death.

### How is cryptosporidiosis spread?

The parasite is found in the stool (feces) of infected humans, domestic animals (especially cattle) and wild animals. Infection occurs after the parasite is swallowed and this is referred to as fecal-oral spread. Fecal-oral spread can happen from person-to-person, animal-to-animal or animal-to-person. Person-to-person spread can occur following poor handwashing by infected persons with diarrhea, persons who are incontinent of stool, persons with poor personal hygiene and diapered children. Spread can also occur by drinking contaminated water, but this is less likely.

Cryptosporidiosis can sometimes be spread through lakes and swimming pools when people who have diarrhea from cryptosporidiosis swim in the lake or pool or the water becomes contaminated from sewage or animal sources of cryptosporidiosis. The parasites can survive in water and infect swimmers who swallow it or get their lips wet.

### Who gets cryptosporidiosis?

Anyone can get a cryptosporidium infection. People at greatest risk for severe illness are those with weakened immune systems, such as people with HIV infection, on chemotherapy, on high-dose steroid therapy, or after organ transplantation.

### How is the disease diagnosed and treated?

Cryptosporidiosis is diagnosed by looking for the parasite in a stool sample.

There is no specific treatment that is recommended for cryptosporidiosis. Fluid replacement is needed if dehydration is a problem. There are some drugs currently being tested for persons with weakened immune systems. Consult your health care provider for more information.

### Can cryptosporidiosis be prevented?

The following steps can help reduce your chance of getting and spreading cryptosporidiosis infection:

- Always wash your hands after using the toilet, changing diapers and before handling food.

- Wash your hands after contact with cattle or other animals.
- Do not swim in pools and lakes if you have diarrhea.
- Avoid drinking raw milk, other unpasteurized dairy products or apple cider made from unwashed apples.
- Do not drink directly from streams, brooks or lakes when hiking or camping.
- Avoid drinking unboiled water and avoid ice cubes when traveling in developing countries or whenever you are unsure of the quality of the drinking water. To kill cryptosporidium germs, bring tap water to a rolling boil for one minute before drinking it or making ice cubes.
- Follow any water advisories issued by local and state authorities.

In Massachusetts, the chance that cryptosporidium would be a problem in regulated, public drinking water is low. However, people who are having problems with their immune system may have a more severe illness if they are infected with the parasite, and they may want to consider following these additional recommendations, especially if there is any question about water supply:

- Be particularly careful to avoid contact with feces (stool.)
- Avoid sexual practices that may involve direct contact with stool.
- Bring water to a rolling boil for one minute before drinking it or making ice cubes with it.
- Consider the use of a home water filtering system with a very fine filter (with an absolute pore size of 1 micron or smaller). Such filters include: reverse-osmosis filters; filters labeled as “absolute” 1 micron filters; and those labeled as meeting National Sanitation Foundation (NSF) standard #53 for cyst removal. Use the home water filtering system according to the manufacturer’s instructions and maintain it regularly.
- Avoid swallowing water when swimming. Lakes, streams (and other surface waters) and swimming pools may be contaminated with cryptosporidium, and chlorination is not effective in eliminating the parasite.

**Note: Commercial bottled water may be used, but it is not checked for cryptosporidium and cannot be guaranteed to be free of this parasite. For more information about water filters, contact the NSF at 789 North Dixboro Road, P.O. Box 130140, Ann Arbor, Michigan 48113-0140. Telephone: (877) 867-3435.**

## **Are there any restrictions for people with cryptosporidiosis?**

Yes. Because cryptosporidiosis is a disease that can easily spread to other people, health care providers are required by law to report cases of cryptosporidiosis to the local board of health.

In order to protect the public, workers at food-related businesses who have cryptosporidiosis must stay out of work until they do not have diarrhea and one lab test on a stool sample shows that there are no cryptosporidium parasites. Workers in food-related businesses who have diarrhea and live with someone who has cryptosporidiosis must also show that they have no cryptosporidium germs in their stool. Food-related businesses include restaurants, sandwich shops, hospital kitchens, supermarkets, dairy or food-processing plants. This regulation also includes workers in schools, residential programs, day-care and health care facilities who feed, give mouth care or dispense medications to clients.

## **Where can I get more information?**

- Your local board of health (listed in the phone book under local government)
- Your doctor, nurse or health center
- Massachusetts Department of Public Health, Division of Epidemiology and Immunization at (617) 983-6800 or toll-free at (888) 658-2850 or on the MDPH website at <http://www.mass.gov/dph>